

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/776,521B  
Source: IFWO  
Date Processed by STIC: 5/26/05

# ***ENTERED***



IFWO

## RAW SEQUENCE LISTING

DATE: 05/26/2005

PATENT APPLICATION: US/10/776,521B

TIME: 12:19:01

Input Set : D:\SEQLIST (8449-405 substitute II).TXT

Output Set: N:\CRF4\05262005\J776521B.raw

4 <110> APPLICANT: Fletchner, Jessica  
 5 Prince-Cohane, Kenya  
 6 Mehta, Sunil  
 7 Slusarewicz, Paul  
 8 Andjelic, Sofija  
 9 Barber, Brian  
 11 <120> TITLE OF INVENTION: IMPROVED HEAT SHOCK PROTEIN-BASED VACCINES AND  
 12 IMMUNOTHERAPIES  
 14 <130> FILE REFERENCE: 8449-405-999  
 16 <140> CURRENT APPLICATION NUMBER: 10/776,521B  
 17 <141> CURRENT FILING DATE: 2004-02-12  
 19 <150> PRIOR APPLICATION NUMBER: 60/503,417  
 20 <151> PRIOR FILING DATE: 2003-09-16  
 22 <150> PRIOR APPLICATION NUMBER: 60/463,746  
 23 <151> PRIOR FILING DATE: 2003-04-18  
 25 <150> PRIOR APPLICATION NUMBER: 60/462,469  
 26 <151> PRIOR FILING DATE: 2003-04-11  
 28 <150> PRIOR APPLICATION NUMBER: 60/447,142  
 29 <151> PRIOR FILING DATE: 2003-02-13  
 31 <160> NUMBER OF SEQ ID NOS: 419  
 33 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 35 <210> SEQ ID NO: 1  
 36 <211> LENGTH: 4  
 37 <212> TYPE: PRT  
 38 <213> ORGANISM: Malaria  
 40 <400> SEQUENCE: 1  
 41 Asn Ala Asn Pro  
 42 1  
 45 <210> SEQ ID NO: 2  
 46 <211> LENGTH: 9  
 47 <212> TYPE: PRT  
 48 <213> ORGANISM: Unknown  
 50 <220> FEATURE:  
 51 <223> OTHER INFORMATION: HLA-A2 peptide binding motif  
 53 <220> FEATURE:  
 54 <221> NAME/KEY: VARIANT  
 55 <222> LOCATION: 2  
 56 <223> OTHER INFORMATION: Xaa = Leu or Met  
 58 <220> FEATURE:  
 59 <221> NAME/KEY: VARIANT  
 60 <222> LOCATION: 6  
 61 <223> OTHER INFORMATION: Xaa = Val or Ile or Leu or Thr  
 63 <220> FEATURE:

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64 <221> NAME/KEY: VARIANT
65 <222> LOCATION: 9
66 <223> OTHER INFORMATION: Xaa = Val or Leu
68 <220> FEATURE:
69 <221> NAME/KEY: VARIANT
70 <222> LOCATION: 1, 3, 4, 5, 7, 8
71 <223> OTHER INFORMATION: Xaa = any amino acid
73 <400> SEQUENCE: 2
W--> 74 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
75 1 5
78 <210> SEQ ID NO: 3
79 <211> LENGTH: 9
80 <212> TYPE: PRT
81 <213> ORGANISM: Unknown
83 <220> FEATURE:
84 <223> OTHER INFORMATION: HLA-A2 peptide binding motif
86 <220> FEATURE:
87 <221> NAME/KEY: VARIANT
88 <222> LOCATION: 2
89 <223> OTHER INFORMATION: Xaa = Leu or Met
91 <220> FEATURE:
92 <221> NAME/KEY: VARIANT
93 <222> LOCATION: 1, 3, 4, 5, 6, 7, 8
94 <223> OTHER INFORMATION: Xaa = any amino acid
96 <400> SEQUENCE: 3
W--> 97 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Val
98 1 5
101 <210> SEQ ID NO: 4
102 <211> LENGTH: 8
103 <212> TYPE: PRT
104 <213> ORGANISM: Unknown
106 <220> FEATURE:
107 <223> OTHER INFORMATION: HLA-A2 peptide binding motif
109 <220> FEATURE:
110 <221> NAME/KEY: VARIANT
111 <222> LOCATION: 2
112 <223> OTHER INFORMATION: Xaa = Val or Gln
114 <220> FEATURE:
115 <221> NAME/KEY: VARIANT
116 <222> LOCATION: 1, 3, 4, 5, 6, 7
117 <223> OTHER INFORMATION: Xaa = any amino acid
119 <400> SEQUENCE: 4
W--> 120 Xaa Xaa Xaa Xaa Xaa Xaa Leu
121 1 5
124 <210> SEQ ID NO: 5
125 <211> LENGTH: 5
126 <212> TYPE: PRT
127 <213> ORGANISM: Unknown
129 <220> FEATURE:

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130 <223> OTHER INFORMATION: HLA-DR peptide binding motif
132 <400> SEQUENCE: 5
133 Gln Lys Arg Ala Ala
134 1 5
137 <210> SEQ ID NO: 6
138 <211> LENGTH: 5
139 <212> TYPE: PRT
140 <213> ORGANISM: Unknown
142 <220> FEATURE:
143 <223> OTHER INFORMATION: HLA-DR peptide binding motif
145 <400> SEQUENCE: 6
146 Arg Arg Arg Ala Ala
147 1 5
150 <210> SEQ ID NO: 7
151 <211> LENGTH: 7
152 <212> TYPE: PRT
153 <213> ORGANISM: Unknown
155 <220> FEATURE:
156 <223> OTHER INFORMATION: motif in heptamiric region recognized by heat
157 shock protein
159 <220> FEATURE:
160 <221> NAME/KEY: VARIANT
161 <222> LOCATION: 2
162 <223> OTHER INFORMATION: Xaa = Trp or any amino acid
164 <220> FEATURE:
165 <221> NAME/KEY: VARIANT
166 <222> LOCATION: 1, 3, 5, 7
167 <223> OTHER INFORMATION: Xaa = hydrophobic amino acid residues
169 <220> FEATURE:
170 <221> NAME/KEY: VARIANT
171 <222> LOCATION: 4, 6
172 <223> OTHER INFORMATION: Xaa = any amino acid
174 <400> SEQUENCE: 7
W--> 175 Xaa Xaa Xaa Xaa Xaa Xaa Xaa
176 1 5
179 <210> SEQ ID NO: 8
180 <211> LENGTH: 7
181 <212> TYPE: PRT
182 <213> ORGANISM: Unknown
184 <220> FEATURE:
185 <223> OTHER INFORMATION: motif in heptamiric region recognized by heat
186 shock protein
188 <220> FEATURE:
189 <221> NAME/KEY: VARIANT
190 <222> LOCATION: 2
191 <223> OTHER INFORMATION: Xaa = Trp or any amino acid
193 <220> FEATURE:
194 <221> NAME/KEY: VARIANT
195 <222> LOCATION: 1, 3, 5, 7,

```

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```

196 <223> OTHER INFORMATION: Xaa = hydrophobic amino acid residue, particularly
197     tryptophan, leucine or phenylalanine
199 <220> FEATURE:
200 <221> NAME/KEY: VARIANT
201 <222> LOCATION: 4, 6
202 <223> OTHER INFORMATION: Xaa = any amino acid
204 <400> SEQUENCE: 8
W--> 205 Xaa Xaa Xaa Xaa Xaa Xaa Xaa
206   1           5
209 <210> SEQ ID NO: 9
210 <211> LENGTH: 4
211 <212> TYPE: PRT
212 <213> ORGANISM: Artificial Sequence
214 <220> FEATURE:
215 <223> OTHER INFORMATION: mutated heat shock protein peptide
217 <400> SEQUENCE: 9
218 Lys Asp Glu Leu
219   1
221 <210> SEQ ID NO: 10
222 <211> LENGTH: 10
223 <212> TYPE: PRT
224 <213> ORGANISM: Adeno Virus
226 <400> SEQUENCE: 10
227 Ser Gly Pro Ser Asn Thr Pro Pro Glu Ile
228   1           5           10
231 <210> SEQ ID NO: 11
232 <211> LENGTH: 11
233 <212> TYPE: PRT
234 <213> ORGANISM: Lymphocytic Choriomeningitis Virus (LCMV)
236 <400> SEQUENCE: 11
237 Ser Gly Val Glu Asn Pro Gly Gly Tyr Cys Leu
238   1           5           10
241 <210> SEQ ID NO: 12
242 <211> LENGTH: 10
243 <212> TYPE: PRT
244 <213> ORGANISM: Lymphocytic Choriomeningitis Virus (LCMV)
246 <400> SEQUENCE: 12
247 Lys Ala Val Tyr Asn Phe Ala Thr Cys Gly
248   1           5           10
251 <210> SEQ ID NO: 13
252 <211> LENGTH: 9
253 <212> TYPE: PRT
254 <213> ORGANISM: Lymphocytic Choriomeningitis Virus (LCMV)
256 <400> SEQUENCE: 13
257 Arg Pro Gln Ala Ser Gly Val Tyr Met
258   1           5
261 <210> SEQ ID NO: 14
262 <211> LENGTH: 9
263 <212> TYPE: PRT

```

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264 &lt;213&gt; ORGANISM: Lymphocytic Choriomeningitis Virus (LCMV)

266 &lt;400&gt; SEQUENCE: 14

267 Phe Gln Pro Gln Asn Gly Gln Phe Ile

268 1 5

271 &lt;210&gt; SEQ ID NO: 15

272 &lt;211&gt; LENGTH: 9

273 &lt;212&gt; TYPE: PRT

274 &lt;213&gt; ORGANISM: Influenza Virus

276 &lt;400&gt; SEQUENCE: 15

277 Ile Glu Gly Gly Trp Thr Gly Met Ile

278 1 5

281 &lt;210&gt; SEQ ID NO: 16

282 &lt;211&gt; LENGTH: 10

283 &lt;212&gt; TYPE: PRT

284 &lt;213&gt; ORGANISM: Influenza Virus

286 &lt;400&gt; SEQUENCE: 16

287 Thr Tyr Val Ser Val Ser Thr Ser Thr Leu

288 1 5 10

291 &lt;210&gt; SEQ ID NO: 17

292 &lt;211&gt; LENGTH: 8

293 &lt;212&gt; TYPE: PRT

294 &lt;213&gt; ORGANISM: Influenza Virus

296 &lt;400&gt; SEQUENCE: 17

297 Phe Glu Ala Asn Gly Asn Leu Ile

298 1 5

301 &lt;210&gt; SEQ ID NO: 18

302 &lt;211&gt; LENGTH: 9

303 &lt;212&gt; TYPE: PRT

304 &lt;213&gt; ORGANISM: Influenza Virus

306 &lt;400&gt; SEQUENCE: 18

307 Ile Tyr Ser Thr Val Ala Ser Ser Leu

308 1 5

311 &lt;210&gt; SEQ ID NO: 19

312 &lt;211&gt; LENGTH: 9

313 &lt;212&gt; TYPE: PRT

314 &lt;213&gt; ORGANISM: Influenza Virus

316 &lt;400&gt; SEQUENCE: 19

317 Thr Tyr Gln Arg Thr Arg Ala Leu Val

318 1 5

321 &lt;210&gt; SEQ ID NO: 20

322 &lt;211&gt; LENGTH: 9

323 &lt;212&gt; TYPE: PRT

324 &lt;213&gt; ORGANISM: Influenza Virus

326 &lt;400&gt; SEQUENCE: 20

327 Cys Thr Glu Leu Lys Leu Ser Asp Tyr

328 1 5

331 &lt;210&gt; SEQ ID NO: 21

332 &lt;211&gt; LENGTH: 8

333 &lt;212&gt; TYPE: PRT

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/776,521B

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TIME: 12:19:02

Input Set : D:\SEQLIST (8449-405 substitute II).TXT  
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; Xaa Pos. ~~1,2,3,4,5,6,7,8,9~~  
Seq#:3; Xaa Pos. ~~1,2,3,4,5,6,7,8~~  
Seq#:4; Xaa Pos. ~~1,2,3,4,5,6,7~~  
Seq#:7; Xaa Pos. ~~1,2,3,4,5,6,7~~  
Seq#:8; Xaa Pos. ~~1,2,3,4,5,6,7~~  
Seq#:295; Xaa Pos. 7  
Seq#:296; Xaa Pos. 3  
Seq#:301; Xaa Pos. 2,6  
Seq#:348; Xaa Pos. 5

## VERIFICATION SUMMARY

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Input Set : D:\SEQLIST (8449-405 substitute II).TXT

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L:74 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0  
L:97 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0  
L:120 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0  
L:175 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0  
L:205 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0  
L:495 M:283 W: Missing Blank Line separator, <400> field identifier  
L:3737 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:295 after pos.:0  
L:3756 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:296 after pos.:0  
L:3831 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:301 after pos.:0  
L:4494 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:348 after pos.:0